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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,340	03/06/2007	Larry Lapanashvili	088790-000300US	6589
20350 7590 02/03/2011 KILPATRICK TOWNSEND & STOCKTON LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			EXAMINER LAVERT, NICOLE F	
			ART UNIT 3762	PAPER NUMBER
			NOTIFICATION DATE 02/03/2011	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docket@kilpatricktownsend.com  
ipefiling@kilpatricktownsend.com  
jlhice@kilpatrick.foundationip.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,340	<b>Applicant(s)</b> LAPANASHVILI, LARRY	
	<b>Examiner</b> NICOLE F. LAVERT	<b>Art Unit</b> 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 33-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-48 is/are rejected.
- 7) ☒ Claim(s) 33-48 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/24/10 &amp; 3/6/07</u> .                                    | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Continued Examination Under 37 CFR 1.114**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8 October 2010 has been entered.

### **Claim Objections**

2. Claims 33-48 are objected to because of the following informalities:

Claims 33, 40, 45 & 47 recites the limitation "the R-R path length". There is insufficient antecedent basis for this limitation in the claim.

Claims 43 & 48 recites the limitation "the range of..." There is insufficient antecedent basis for this limitation in the claim.

### **Claim Rejections - 35 USC § 103**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 33-48** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shieh et al. (US 6,337,851) in view Lapanashvili et al. (US 6,450,942).

Shieh et al. discloses an electrotherapy apparatus (e.g., element 12) suitable for applying electrical stimulation to a muscle or group of muscles of a person or other mammal, wherein said electric stimulation comprises electrical pulses, said electrical stimulation having parameters [e.g., (col 2, ln 29-42) & (col 3, ln 65-67)-(col 4, ln 1-6)] comprising a time offset relative to a predicted end of a T-wave of an electrocardiogram (e.g., via the disclosed adjustable decay delay 36) derived from said person or mammal, said offset lying in a range from 5% of the R-R path length before the expected end of the T-wave up to 45% of the R-R path length after the end of the T-wave [e.g., (col 4, ln 27-67) & (Fig 5)], wherein the apparatus is adapted to vary said offset in accordance with a predetermined pattern stored in a microprocessor (e.g., via the disclosed processor 100 of the ICD controller 50 that determines and provides the stimulation parameters) within pre-specified limits in the course of a treatment extending over many heart cycles [e.g., (col 4, ln 20-26), (col 5, ln 31-36) & (col 6, ln 40-48)].

Shieh et al. discloses the claimed invention having an electrotherapy apparatus in which applies electrical stimulation having parameters that may vary except wherein said parameters includes an amplitude, a pulse repetition frequency, pulse duration and/or an interval in which said amplitude is varied from a range from  $\pm 10$  V from a typically 10 to 50V, said pulse frequency lies in the range from 20 to 1000Hz, aid pulse duration lies in the range from .1 to 600 ms and said interval between successive pulses lies in a range from .1 ms to 50 ms. Lapanashvili et al. teaches that it is known to use a method and an apparatus that varies parameters associated with electrical stimulation applied to the heart, wherein said parameters include the time duration, frequency of the impulses, impulse width, amplitude, etc. wherein the amplitude can be varied from a positive amplitude of plus 10 V to a negative amplitude of minus 10 V [e.g., (col

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11, ln 47-67)-(col 12, ln 1-32)]. It would have been obvious to one having ordinary skill in the art to have modified Shieh et al. with the use of the cardiac stimulating device having a means to adjust the amplitude, pulse repetition frequency, pulse duration and/or interval as taught by Lapanashvili in addition to utilizing a pulse frequency that lies in the range from 20 to 1000Hz, a pulse duration that lies in the range from .1 to 600 ms and an interval between successive pulses that lies in a range from .1 ms to 50 ms, since such a modification would provide the predictable results pertaining to utilizing an adaptable electrical stimulating means so as to achieve a heart load reduction via varying electrical parameters to produce an optimized reduction of said heart load [e.g., (col 11, ln 47-67)-(col 12, ln 1-32)] and since it has been held that discovering an optimum value, i.e. the claimed ranges of the amplitude, pulse repetition frequency, pulse duration and/or interval between successive pulses, of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) .

### **Response to Arguments**

5. Applicant's arguments with respect to claims 15-32 have been considered but are moot in view of the new ground(s) of rejection in view of the above rejection.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE F. LAVERT whose telephone number is (571)270-5040. The examiner can normally be reached on M-F 7:30-5:00p.m. (alt. fridays).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Niketa Patel can be reached on 571-272-4156. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicole F. LaVert/  
Examiner, Art Unit 3762